

REMARKS

Reconsideration of the present application is respectfully requested.

Summary of Office Action

Claims 1-3, 5, 6, 8-12 and 16-26 are rejected under 35 USC 103(a) as being unpatentable over U.S. Application Publication No. 2002/0056126 of Srikantan et al. ("Srikantan") in view of U.S. Patent No. 6,370,688 of Hejna, Jr. ("Hejna").

Summary of Examiner Interview

A telephonic interview was conducted between the Examiner and Applicants' representative (the undersigned) on 9/30/2009. Claim 1 was discussed relative to the rejection under 35 USC 103(a). The substance of the discussion is substantially reflected in the remarks below. The Examiner indicated that Applicants' arguments would be given further consideration upon submission in writing. No agreement was reached.

Summary of Amendments

Claim 16 has been amended. No other claims have been amended, canceled or added in this response.

Discussion of Rejections

Applicants respectfully traverse the rejections. Claim 1 recites:

1. A method comprising:
receiving, at the streaming media cache, a request from a first client system for a stream of media data, the stream of media data including a first streaming media data packet representing a particular portion of the stream of media data;
receiving, at the streaming media cache, a request from a second client system for the stream of media data;

receiving, at the streaming media cache, the first streaming media data packet from an upstream server, **the first streaming media data packet including a delivery time at which the first streaming media data packet is scheduled to be delivered to each of the first and second client systems;**

pseudo-randomly selecting a first delay value and adding the first delay value to the delivery time of the first streaming media data packet to form a first modified delivery time for the first streaming media data packet;

pseudo-randomly selecting a second delay value and adding the second delay value to the delivery time of the first streaming media data packet to form a second modified delivery time for the first streaming media data packet;

modifying the first streaming media data packet with the first modified delivery time in the streaming media cache to form a first modified first streaming media data packet;

modifying the first streaming media data packet with the second modified delivery time in the streaming media cache to form a second modified first streaming media data packet;

outputting the first modified first streaming media data packet from the streaming media cache to the first client system to cause the first modified first streaming media data packet to be delivered to the first client system at the first modified delivery time; and

outputting the second modified first streaming media data packet from the streaming media cache to the second client system to cause the second modified first streaming media data packet to be delivered to the second client system at the second modified delivery time. (Emphasis added.)

The cited combination, Srikantan and Hejna, fails to disclose or suggest such a method or a corresponding apparatus.

1. No disclosure of *pseudo-random selection*; Hejna teaches away.

The Office admits that Srikantan does not disclose pseudo-random selection of delays, but cites Hejna for that functionality, citing Hejna at col. 8, lines 35-46 & col. 11, lines 43-46. Hejna does mention that there are different sources of random delay in a system for distributing audiovisual works over the Internet (col. 1, lines 30-35 & 54-58;

col. 2, lines 28-35). In particular, Hejna discloses a technique that purportedly provides substantially continuous playback of streaming media over a network, in the presence of non-deterministic delays, such as delays due to a media broadcast server accessing storage media, delays due to congestion and interference on the network, etc. (*Id.*).

However, the random (or non-deterministic) delays discussed in Hejna occur as an incidental result (and an undesirable one) of operation of the system. Consequently, there is no actual selection of such delay values in Hejna, as in the present invention; they just occur, and they may change based on various factors. For at least this reason, therefore, no combination of Hejna and Srikantan could produce the present invention, as claimed.

Furthermore, Hejna teaches away from the present invention, because Hejna discloses that random delays are part of the problem that needs to be solved (col. 1, lines 30-35 & 54-58; col. 2, lines 28-35). In contrast, the present invention uses pseudorandom delays as part of its solution. Rather than trying to mitigate the effects of random delays as in Hejna, the present invention intentionally introduces pseudo-random delays, to solve a different problem. Therefore, by teaching that random delays are part of a problem to be solved, Hejna clearly teaches away from the present invention and could not form the basis of an obviousness rejection.

Additionally, the Office's comments about use of the term "pseudo-random time selection" are inapposite. The Office states:

Additionally, examiner notes that "varying packet delay" analogy is consistent with the applicant's disclosure of "Pseudo-random time selection" for a packet because applicant's specification is silent regarding applicability of any "rule or criteria" for pseudo-random time selection. Examiner notes that "Pseudo-random time selection" is an open ended broad term. (Office Action, p. 4, lines 6-10).

Firstly, the phrase "pseudo-random time selection" does not appear anywhere in applicants' claims. Secondly, the term "pseudo-random" is precise and its meaning is well understood by those of ordinary skill in the art. It is certainly not "open ended".

2. Unremedied admission by the Office negates *prima facie* case of obviousness.

The Office admits that Srikantan fails to disclose the following features:

1) the feature of modifying the media data packet delivery time for first and second client respectively so that the media data packet from the source reaches the first and second client at slightly different times¹ (Office Action, p. 3, lines 6-9).

2) pseudo randomly selecting a second delay value; and modifying the specified packet delivery time of the first packet of data for delivery of the first packet of data to a second downstream client system, by adding the second delay value to the specified packet delivery time of second first [*sic*] packet of data (Office Action, p. 3, lines 17-20). For this feature, the Office cites Hejna (Office Action, p. 3, lines 21 – p. 4, line 10).

To facilitate discussion, these features are referred to below as features "1)" and "2)", respectively.

It is well settled that all limitations in a claim must be considered in judging the patentability of that claim against the prior art. MPEP 2143.03 (citing *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)). The Office admits that Srikantan fails to disclose feature 1) mentioned above, yet nowhere does the Office Action actually allege that feature 1) is disclosed somewhere else in the cited combination. The closest the Office comes to doing so is to generally assert, "Therefore . . . time delay techniques are utilized," citing paragraphs [0025], [0026], [0055] & [0056] of Srikantan and then (Office Action, p. 3, lines 9-16)(emphasis added).

But the mere use of time delays, even if disclosed in Srikantan (which it is not, as discussed below), does not equate to or fairly suggest the specific manner of using time delays in feature 1) above or in claim 1, i.e., modifying a streaming media data packet to have a modified delivery time based on a pseudo-randomly selected time delay. Thus,

¹ Note that this is a quote of the Office's statement, which is *not* an accurate quote of the language of claim 1.

the present rejection lacks merit at least due to the Office's failure to make any colorable attempt to remedy its own admission regarding Srikantan.

3. No disclosure of using time delays

Furthermore, Srikantan does not disclose the use of time delays. The Office erroneously cites Srikantan at paragraphs [0008], [0025], [0026], [0055] and [0056] as disclosing that time delay techniques are utilized. The cited disclosure indicates that "different client streams may, at any given time, be streaming media from different time indices within the media track." That disclosure does not imply the use of time delay techniques. Srikantan does not explain when this situation of different client streaming media from different time indices within a media track might occur. It is entirely possible that it refers to a situation where different clients have requested different portions of the media track, or where different clients have submitted their requests at different times (the "time indices" in Srikantan correspond to the logical positions of video frames or audio samples within a media program, relative to the other frames/samples -- see Srikantan, [0036]).

The Office responds to this argument on pages 7-8 of the present Office Action by citing and quoting Srikantan at paragraphs [0049] and [0055]. However, there is nothing in those paragraphs, or anywhere else in Srikantan, that remotely suggests the use of time delay values, much less modifying individual streaming media packets with time delay values.

The Office further responds to this argument by stating that this "is merely [Applicants'] own assumption" (Office Action, pp. 7-8). However, the Office's assertion that time delays are utilized in Srikantan is merely the Office's own assumption, which is not supported by the cited paragraphs or anything else in Srikantan. Furthermore, Applicants did not allege that the media requests must have occurred from different clients at different times in Srikantan as the Office Action contends at p. 8, lines 1-2.

Applicants only pointed out that this is one of multiple possible assumptions from the disclosure in Srikantan that the Office is citing (as reiterated above).

The Office goes on to state:

Finally examiner would again point out to the "fact" that a live media (single source) event (e.g., Music concert [*sic*] being broadcasted [*sic*] to multiple clients in real time conforming to the specified Quality of Service has to have a time delay value to meet the required criteria and it is clearly shown in Srikantan's disclosure. Office Action, p. 9 (emphasis original).

Applicants respectfully disagree. This is not shown in Srikantan's disclosure, and this alleged "fact" is merely the Office's own assumption, which is not supported by the art of record.

4. No disclosure of modifying a delivery time in an individual data packet.

Even assuming *arguendo* Srikantan inherently or implicitly discloses the use of time delays, Srikantan's disclosure (including that at paragraphs [0008] and [0055]) does not relate to applying such delay techniques by modifying a delivery time in an individual data packet, as in Applicants' claimed invention. The cited disclosure in Srikantan refers to different "time indices" within a particular media track. The "time indices" in Srikantan are values that indicate the logical position of a video frame or audio sample within a media program, relative to the other frames/samples (see Srikantan, [0036]). A video frame or audio sample is not the same thing as a streaming media packet; video frames and audio samples do not necessarily have one-to-one correspondences to the data packets that are used to transmit them to clients (Srikantan, [0036], [0037]). Thus, even if Srikantan inherently discloses the use of delay techniques (which it does not), Srikantan does not disclose or suggest applying such techniques to individual streaming media packets, as in the present invention.

Indeed, Applicants find no hint in Srikantan that a streaming media data packet even includes a delivery time, i.e., a time at which a streaming media data packet is scheduled to be delivered to a client system. The "time indices" within the media tracks

described in Srikantan are not delivery times. They are values that indicate the logical position of a video frame or audio sample within a media program, relative to the other frames/samples (see Srikantan, [0036]).

On page 6 of the Office Action, paragraph 11, last five lines, the Office states, "Time indices' is referring to the sequence (metadata) of the packet so that the media data (packet) can be inserted into a buffer . . ." That assertion is incorrect. In Srikantan, the time indices are not related to data packets; they merely indicate the logical position of a frame or audio sample within a media program. Furthermore, video frames and audio samples do not necessarily have one-to-one correspondences to the data packet that are used to transmit them to clients (Srikantan, [0036], [0037]).

For the above reasons, claim 1 and all claims dependent on it are thought to be patentable over the cited arts.

Independent claims 9, 16, and 22 recite similar distinctive limitations similar to those discussed above regarding in claim 1 that differentiate the claims from the cited art for similar reasons. Therefore, claims 9, 16, and 22 and all claims which depend on them are also thought to be patentable over the cited arts.

Applicants have not necessarily discussed here every reason why every pending independent claim is patentable over the cited art; nonetheless, Applicants are not waiving any argument regarding any such reason or reasons. Applicants reserve the right to raise any such additional argument(s) during the future prosecution of this application, if Applicants deem it necessary or appropriate to do so.

Dependent Claims

In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicants' silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim.

CONCLUSION

For the foregoing reasons, the present application is believed to be in condition for allowance, and such action is earnestly requested.

If any fee is due with this submission, the Commissioner is authorized to charge Deposit Account No. 50-2207.

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Respectfully submitted,

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